

2020-21

## **PROJECT MANAGEMENT CONSULTANCY REPORT**

**Name of the Client:** Executive Engineer, Dasarahalli Division, BBMP, Bangalore.

**Agency:** Smt Manjula, Contractor, Bangalore.

**Name of the Work:** Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.



### **M/s. CIVIL QUALITY CONSULTANTS & ENGINEERS**

**(Buildings Geo-Tech & Road Materials Testing Laboratory)**

**An ISO 9001: 2015 Certified Company**

**NABL Accredited as per ISO-17025: 2005 Laboratory**

#133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore-560056  
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 Mob: 9886998316



# CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001: 2015 Certified Company

NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory



**Name of Work ::** Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

Name of Client : Executive Engineer, Dasarahalli Division, BBMP, Bangalore.

Contractor/Agency : Smt Manjula, Contractor, Bangalore.

Total Cost : Rs. 10.00 Lakhs

Date of Inspection : 04.03.2021

Status of Bill : 1st and final Bill

In the Presence of : (a) Assistant Engineer (W. No.13), BBMP, Bangalore.

: (b) Mr. Mohan G, Engineer

M/S Civil Quality Consultants and Engineers, Bangalore

AEE

| Sl.No | Description of the Item                                                                                                                                                           | Comments / observations                                           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1     | KSRRB 300-3. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil involving , excavated surface leveled & sides neatly dressed , the           | : Work done up to the billed quantity and Quality is satisfactory |
| 2     | KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates                 | : Work done up to the billed quantity and Quality is satisfactory |
| 3     | Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates | : Work done up to the billed quantity and Quality is satisfactory |
| 4     | Providing TMT Steel Reinforcement for RCC Work...                                                                                                                                 | : Work done up to the billed quantity and Quality is satisfactory |

2020-21

## **QUALITY CONTROL TEST REPORTS**

**Name of the Client:** Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.

**Agency:** Smt Manjula, Contractor, Bangalore.

**Name of the Work:** Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.



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e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 Mob: 9886998316

## QC-ABSTRACT

Name of Work:- Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

| Sl No. | Item      | Quantity As Per BOQ | Required No's of tests | Actual No's of tests | Tests                                                      |
|--------|-----------|---------------------|------------------------|----------------------|------------------------------------------------------------|
| 1      | PCC 1:3:6 | 13.80 Cum           | 1                      | 1                    | Cement                                                     |
| 2      | Steel     | 5.01 Tonne          | 1                      | 1                    | Sand, Aggregates                                           |
| 3      | M20       | 55.66Cum            | 5                      | 9                    | Compressive strength<br>Concrete Cube Compressive strength |

|       |                          |       |
|-------|--------------------------|-------|
| Cubes | 0-5 m <sup>3</sup>       | 1set  |
|       | 6-15 m <sup>3</sup>      | 2set  |
|       | 16-30 m <sup>3</sup>     | 3set  |
|       | 31-50 m <sup>3</sup>     | 4 set |
|       | Add 1set for extra 50Cum |       |





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ISO 9001:2000  
CERTIFIED

Job No.: CQCE/BBMP/MN/VO.13/2020-2021

Date: 11.01.2021

## TEST REPORT ON CEMENT

Client : Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.

Agency : Smt Manjula, Contractor, Bangalore.

Name of Work : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

Sample ID: : Cement (Chettinad 53 grade OPC)

Sample Supplied by: : AGENCY

Date of : December-2020

Manufacture:

Date of Testing : 09.01.2021 to 11.01.2021

| Sl.No | Descriptions            | Test Method as per IS                                       | Test Result | Requirements as per IS: 269:2015 |
|-------|-------------------------|-------------------------------------------------------------|-------------|----------------------------------|
| 1     | a) Initial Setting Time | IS-4031 (Part - 5):1988(RA 2014)                            | 140Minutes  | Not Less than 30 Minutes         |
|       | b) Final Setting Time   | IS-4031 (Part - 5):1988(RA 2014)                            | 325 Minutes | Not More than 600 Minutes        |
| 2     | Soundness               | IS-4031 (Part 3) :1988 (RA 2014) by the Le-Chatelier method | 1mm         | Not more than 10 mm              |
| 3     | Standard Consistency    | IS-4031 (Part -4)                                           | 28.00%      |                                  |

For CIVIL QUALITY CONSULTANTS & ENGINEERS

### Note:

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Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date 11.01.2021

## TEST REPORT ON FINE AGGREGATES (SAND)

**Client** : Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.

**Agency** : Smt Manjula, Contractor, Bangalore.

**Name of Work** : Improvements and Maintanance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

**Date of Testing** 11.01.2021

**IS Code** : IS 383:2016

: IS 2386 (Part 1):1963(RA 2011)

**Material** : Sand

Total Wt. of Aggregates in gms

1000

| Is Sieve Size in mm | Weight Retained (gm) | Retained Weight in % | Cumulative Retained Weight in % | Cumulative Weight Passing in % | Requirements as per IS 383:2016 |
|---------------------|----------------------|----------------------|---------------------------------|--------------------------------|---------------------------------|
| 10                  | 0                    | 0                    | 0                               | 100                            | 100                             |
| 4.75                | 78                   | 7.80                 | 7.80                            | 92.2                           | 90-100                          |
| 2.36                | 121                  | 12.10                | 19.90                           | 80.1                           | 75-100                          |
| 1.18                | 126                  | 12.60                | 32.50                           | 67.5                           | 55-90                           |
| 600 Micron          | 264                  | 26.40                | 58.90                           | 41.1                           | 35-59                           |
| 300 Micron          | 208                  | 20.80                | 79.70                           | 20.3                           | 8-30                            |
| 150 Micron          | 171                  | 17.10                | 96.80                           | 3.2                            | 0-10                            |

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Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date 11.01.2021

## TEST REPORT ON COARSE AGGREGATES

**Client** : Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.

**Agency** : Smt Manjula, Contractor, Bangalore.

**Name of Work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

**Date of Testing** 11.01.2021

**IS Code** : IS 383:2016

: IS 2386 (Part 1):1963(RA 2011)

**Material** : 40mm Aggregates

Total Wt. of Aggregates in gms **15000**

| Is Sieve Size in mm | Weight Retained (gm) | Retained Weight in % | Cumulative Retained Weight in % | Cumulative Weight Passing in % | Requirements as per IS 383:2016 |
|---------------------|----------------------|----------------------|---------------------------------|--------------------------------|---------------------------------|
| 80                  | 0                    | 0                    | 0                               | 100                            | 100                             |
| 40                  | 56                   | 0.37                 | 0.37                            | 99.63                          | 95-100                          |
| 20                  | 6123                 | 40.82                | 41.19                           | 58.81                          | 30-70                           |
| 10                  | 4658                 | 31.05                | 72.25                           | 27.75                          | 10-35                           |
| 4.75                | 3598                 | 23.99                | 96.23                           | 3.77                           | 0-5                             |

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*Signature*

ಹೊಯ್ಸ ಕಾರ್ಯಪಾಲಕ ಅಧೀನದಲ್ಲಿ  
ಪ್ರತಿಷ್ಠಾಪನಾ, ದಾಖಲೆ ಮತ್ತು  
ಪ್ರಕಟಣೆ ವಿಭಾಗದ ಮಹಾಸವರಿಗೆ  
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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JAS-ANZ



Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date 11.01.2021

## TEST REPORT ON COARSE AGGREGATES

Client : Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.

Agency : Smt Manjula, Contractor, Bangalore.

Name of Work : Improvements and Maintanance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

Date of Testing 11.01.2021

IS Code : IS 383:2016

: IS 2386 (Part 1):1963(RA 2011)

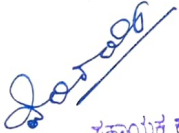
Material : 20mm Aggregates

Total Wt. of Aggregates in gms= 5000

| Is Sieve Size in mm | Weight Retained (gm) | Retained Weight in % | Cumulative Retained Weight in % | Cumulative Weight Passing in % | Requirements as per IS |
|---------------------|----------------------|----------------------|---------------------------------|--------------------------------|------------------------|
| 40                  | 0                    | 0                    | 0                               | 100                            | 100                    |
| 20                  | 78                   | 1.6                  | 1.6                             | 98.4                           | 95-100                 |
| 10                  | 2563                 | 51.3                 | 52.8                            | 47.2                           | 25-55                  |
| 4.75                | 2121                 | 42.4                 | 95.2                            | 4.8                            | 0-10                   |

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು  
ಶಿಬ್ಬಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ  
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
ಎಸ್.ಎಂ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date 11.01.2021

## TEST REPORT OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : Assistant Executive Engineer, Shettyhalli Division, BBMP Bangalore.  
Agency : Smt Manjula, Contractor, Bangalore.  
Name of Work : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.  
Steel Dia/Length : 8mm,10mm,12mm,16mm" TMT"  
Reference to BIS codes : IS 1786:2008(RA 2013) High Strength Deformed Steel Bars and Wires for Concrete Reinforcement-Specification  
: IS 1608:2005 Metallic Materials- Tensile Testing at Ambient Temperature  
Date of test 11.01.2021

| S.No | Brand | Nominal size (dia in mm) | Mass per meter (kg/meter) | TENSILE STRENGTH                                       |                                       |             |                                      |
|------|-------|--------------------------|---------------------------|--------------------------------------------------------|---------------------------------------|-------------|--------------------------------------|
|      |       |                          |                           | 0.20 % proof stress/ yield stress (N/mm <sup>2</sup> ) | Tensile strength (N/mm <sup>2</sup> ) | TS/YS ratio | Elongation , percent on gauge length |
| 1    | TMT   | 8                        | 0.396                     | 510                                                    | 605                                   | 1.19        | 15                                   |
| 2    | TMT   | 10                       | 0.618                     | 526                                                    | 619                                   | 1.18        | 16                                   |
| 3    | TMT   | 12                       | 0.888                     | 535                                                    | 632                                   | 1.18        | 18                                   |
| 4    | TMT   | 16                       | 1.58                      | 547                                                    | 641                                   | 1.17        | 20                                   |

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Job No.: COCE/BBMP/MN/WO.13/2020-2021

Date: 19.01.2021

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

**Client** : Executive Engineer, K R Puram Division, BBMP, Bangalore.  
**Agency** : Smt Manjula, Contractor, Bangalore.  
**Name of the work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Sherryhalli Sub division, BBMP, Bangalore.

**Sample ID** : Cement Concrete  
**Size of cubes** : 150mmx150mmx150mm  
**Gross Sectional Area** : 22500 mm<sup>2</sup>  
**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)  
**Grade of Concrete** : M<sub>20</sub>

**Compressive Strength as on** : 7th day

| S/LNo. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 12.01.2021      | 19.01.2021      | 8.002               | 380.9             | 16.93                                     |
| 2      | 12.01.2021      | 19.01.2021      | 8.030               | 394.5             | 17.53                                     |
| 3      | 12.01.2021      | 19.01.2021      | 8.049               | 402.3             | 17.88                                     |

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Date: 09.02.2021

Job No.: CQCE/BBMP/MN/WO.13/2020-2021

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

**Client** : Executive Engineer, K R Puram Division, BBMP, Bangalore.  
**Agency** : Smt Manjula, Contractor, Bangalore.  
**Name of the work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.  
**Sample ID** : Cement Concrete  
**Size of cubes** : 150mmx150mmx150mm  
**Cross Sectional Area** : 22500 mm<sup>2</sup>  
**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)  
**Grade of Concrete** : M<sub>20</sub>  
**Compressive Strength as on** : 28th day

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 12.01.2021      | 09.02.2021      | 8.199               | 501.8             | 22.30                                     |
| 2      | 12.01.2021      | 09.02.2021      | 8.096               | 516.3             | 22.95                                     |
| 3      | 12.01.2021      | 09.02.2021      | 8.008               | 486.6             | 21.63                                     |

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Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date: 20.01.2021

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

**Client** : Executive Engineer, K R Puram Division, BBMP, Bangalore.  
**Agency** : Smt Manjula, Contractor, Bangalore.  
**Name of the work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.  
**Sample ID** : Cement Concrete  
**Size of cubes** : 150mmx150mmx150mm  
**Cross Sectional Area** : 22500 mm<sup>2</sup>  
**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)  
**Grade of Concrete** : M<sub>20</sub>  
**Compressive Strength as on** : 7th day

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 13.01.2021      | 20.01.2021      | 8.140               | 355.8             | 15.81                                     |
| 2      | 13.01.2021      | 20.01.2021      | 8.119               | 372.5             | 16.56                                     |
| 3      | 13.01.2021      | 20.01.2021      | 8.183               | 386.4             | 17.17                                     |

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 ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
 ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

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 Authorised Signatory



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Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date: 10.02.2021

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

**Client** : Executive Engineer, K R Puram Division, BBMP, Bangalore.

**Agency** : Smt Manjula, Contractor, Bangalore.

**Name of the work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

**Sample ID** : Cement Concrete

**Size of cubes** : 150mmx150mmx150mm

**Cross Sectional Area** : 22500 mm<sup>2</sup>

**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)

**Grade of Concrete** : M<sub>20</sub>

**Compressive Strength as on** : 28th day

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 13.01.2021      | 10.02.2021      | 8.131               | 521.6             | 23.18                                     |
| 2      | 13.01.2021      | 10.02.2021      | 8.169               | 535.6             | 23.80                                     |
| 3      | 13.01.2021      | 10.02.2021      | 8.189               | 548.2             | 24.36                                     |

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 ಶಿಕ್ಷಕರು, ಕಾರ್ಯದರ್ಶಿ, ದಾಖಲೆ ಮತ್ತು  
 ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ  
 ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

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IAS-ANZ



Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date: 22.01.2021

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

**Client** : Executive Engineer, K R Puram Division, BBMP, Bangalore.

**Agency** : Smt Manjula, Contractor, Bangalore.

**Name of the work** : Improvements and Maintenance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

**Sample ID** : Cement Concrete

**Size of cubes** : 150mmx150mmx150mm

**Cross Sectional Area** : 22500 mm<sup>2</sup>

**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)

**Grade of Concrete** : M<sub>20</sub>

**Compressive Strength as on** : 7th day

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 15.01.2021      | 22.01.2021      | 8.190               | 352.3             | 15.66                                     |
| 2      | 15.01.2021      | 22.01.2021      | 8.161               | 374.7             | 16.65                                     |
| 3      | 15.01.2021      | 22.01.2021      | 8.130               | 391.4             | 17.40                                     |

Note:

- The report shall not be reproduced, except in full, without the written approval of the laboratory.
- The results indicated above are based on the tests carried out on the samples received in the laboratory.
- Any Query regarding the report must be reported within 30 days from the date of testing.

*Signature*

ಇವುಗಳ ಮೇಲೆ ಸಹಿ ಮಾಡಿದರೆ  
ಪ್ರತಿಷ್ಠೆ ಸುರಕ್ಷಿತವಾಗಿ, ದಾಖಲೆಗೆ ಪರಿವರ್ತಿಸಿ  
ಬಳಕೆಗೆ ಬರುವಂತಹಂತೆ ಮಾಡಿ  
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಮೈಸೂರು

For CIVIL QUALITY CONSULTANTS & ENGINEERS

*Signature*  
Authorised Signatory



# CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001: 2015 Certified Company

NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory



Job No.: CQCE/BBMP/MN/WO.13/2020-2021

Date: 12.02.2021

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## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Executive Engineer, K R Puram Division, BBMP, Bangalore.

Agency : Smt Manjula, Contractor, Bangalore.

Name of the work : Improvements and Maintanance of Culverts at Muneshwara Block, Vijayalakshmi Layout and Surrounding area in ward no 13 Shettyhalli Sub division, BBMP, Bangalore.

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm<sup>2</sup>

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M<sub>20</sub>

Compressive Strength as on : 28th day

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength (N/mm <sup>2</sup> ) |
|--------|-----------------|-----------------|---------------------|-------------------|-------------------------------------------|
| 1      | 15.01.2021      | 12.02.2021      | 8.198               | 507.7             | 22.56                                     |
| 2      | 15.01.2021      | 12.02.2021      | 8.123               | 518.5             | 23.04                                     |
| 3      | 15.01.2021      | 12.02.2021      | 8.110               | 523.4             | 23.26                                     |

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ಇವುಗಳನ್ನು ಉಪಯೋಗಿಸಿ, ವಾಸ್ತವಿಕತೆ ಪಡೆಯಬೇಕು. ಬಳಕೆಗೆ ಬಂದಿರುವ ಈ ವರದಿಯನ್ನು ಎಲ್ಲರೂ ರಕ್ಷಿಸಿ, ರದ್ದುಪಡಿಸಬೇಕು.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

*[Handwritten signature]*  
Authorised Signatory